

What is claimed is:

1. A light scanning unit comprising:

a composite light source in which a plurality of light sources for emitting coherent light having different wavelengths are arranged adjacent to one another and an optical axis of each light source is arranged almost parallel to each other and which emits light at a diverging angle centering on each optical axis; and

an optical system comprising a collimator lens arranged on an approximately central axis of an optical axis of each light source comprising the composite light source and collimates the light beam emitted from the composite light source, a cylinder lens for condensing the light beam emitted from the collimator lens, and a polygonal rotating mirror for scanning the light beam condensed by the cylinder lens in a main scanning direction on an exposed surface of an exposed object,

wherein each light source is arranged adjacent to each other on a substrate having a gaseous layer between excitation light-emitting portions of each of the light sources.

2. The light scanning unit of claim 1, wherein a plurality of laser diode chips serving as different light sources are adhered onto the substrate to form the composite light source.

3. The light scanning unit of claim 2, wherein a distance D2 between the plurality of adjacent laser diode chips is between 10 μm and 1 mm, and a distance D1 between the excitation light-emitting portions is between 60 μm and 1 mm provided D1>D2.

4. The light scanning unit of claim 1, wherein materials for the laser diode chips are sequentially stacked on a semiconductor substrate to form each laser diode chip and each light source and the materials are not stacked in a space between the excitation light-emitting portions of each of the laser diode chips.

5. The light scanning unit of claim 4, wherein a distance D2 between the

plurality of adjacent laser diode chips is between 10 μm and 1 mm, and a distance D1 between the excitation light-emitting portions is between 60 μm and 1 mm provided D1>D2.